WHAT IS CLAIMED IS:

1.   A vehicle passenger detecting apparatus in which a load sensor is provided to detect a load acting on a vehicle seat on the basis of a distortion of a seat adjuster portion in a vehicle so that a load detection value taken when said vehicle seat is in an unoccupied state is stored as an unoccupied-seat reference value in advance and a state of a seated passenger on said vehicle seat is detected on the basis of a relative value between a load detection value from said load sensor and said unoccupied-seat reference value, said apparatus comprising reference correcting means for, in a case in which an ignition key switch and a buckle switch are in off conditions and a load detection value from said load sensor in said off conditions falls below an unoccupied-seat load value set in advance, correcting said unoccupied-seat reference value through the use of said load detection value from said load sensor.

2.   A vehicle passenger detecting apparatus comprising:

a seat track interposed between a floor of a vehicle and a seat cushion frame of said vehicle to make said seat cushion frame movable in longitudinal directions of said vehicle with respect to said floor; and a load sensor for detecting a load acting on said seat cushion frame on the basis of a displacement of said seat cushion frame with respect to an upper rail of said seat track, with a load detection value taken when a vehicle seat is in an unoccupied state being stored as an unoccupied-seat reference value in advance and a state of a seated passenger on said vehicle seat being detected on the basis of a relative value between a load detection value from said load sensor and said unoccupied-seat reference value,

said apparatus including reference correcting means for, in a case in which an ignition key switch and a buckle switch are in off conditions and a load detection value from said load sensor in said off conditions falls below an unoccupied-seat load value set in advance, correcting said unoccupied-seat reference value through the use of said load detection value from said load sensor.

1   3.   The apparatus according to claim 1, wherein said unoccupied-seat

2   reference value is stored in a rewritable-type non-volatile memory.

1   4.   The apparatus according to claim 2, wherein said unoccupied-seat

2   reference value is stored in a rewritable-type non-volatile memory.

1   5.   The apparatus according to claim 1, wherein said reference correcting

2   means does not correct said unoccupied-seat reference value in a case in which

3   said load detection value from said load sensor when both said ignition key switch

4   and said buckle switch are in the off conditions exceeds a predetermined

5   threshold.

1   6.   The apparatus according to claim 2, wherein said reference correcting

2   means does not correct said unoccupied-seat reference value in a case in which

3   said load detection value from said load sensor when both said ignition key switch

4   and said buckle switch are in the off conditions exceeds a predetermined

5   threshold.

1   7.   The apparatus according to claim 1, further comprising abnormality

2   history storing means for storing abnormality history information indicative of a

3   detection of an abnormal value in a case in which said load detection value from

4   said load sensor when both said ignition key switch and said buckle switch are in

5   the off conditions exceeds a predetermined threshold so that said reference

6   correcting means does not correct said unoccupied-seat reference value when said

7   abnormality history information is stored in said abnormality history storing

8   means.

8.   The apparatus according to claim 2, further comprising abnormality history storing means for storing abnormality history information indicative of a detection of an abnormal value in a case in which said load detection value from said load sensor when both said ignition key switch and said buckle switch are in the off conditions exceeds a predetermined threshold so that said reference correcting means does not correct said unoccupied-seat reference value when said abnormality history information is stored in said abnormality history storing means.

9.   The apparatus according to claim 1, wherein said reference correcting means automatically corrects said unoccupied-seat reference value on a predetermined cycle.

10.   The apparatus according to claim 2, wherein said reference correcting means automatically corrects said unoccupied-seat reference value on a predetermined cycle.

11.   The apparatus according to claim 9, wherein said reference correcting means is operated in a low power consumption mode, which suppresses power consumption, during a waiting period in the case of said unoccupied-seat reference value being automatically corrected on said predetermined cycle.

12.   The apparatus according to claim 10, wherein said reference correcting means is operated in a low power consumption mode, which suppresses power consumption, during a waiting period in the case of said unoccupied-seat reference value being automatically corrected on said predetermined cycle.

13.   The apparatus according to claim 11, wherein said reference correcting means is operable through the use of a battery mounted in said vehicle.

1   14.   The apparatus according to claim 12, wherein said reference correcting

2   means is operable through the use of a battery mounted in said vehicle.

1   15.   The apparatus according to claim 1, wherein said load detection value

2   from said load sensor is stored in time series, and said reference correcting means

3   corrects said unoccupied-seat reference value through the use of a plurality of load

4   detection values taken in time series.

1   16.   The apparatus according to claim 2, wherein said load detection value

2   from said load sensor is stored in time series, and said reference correcting means

3   corrects said unoccupied-seat reference value through the use of a plurality of load

4   detection values taken in time series.